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Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2008; month=8; day=6; hr=15; min=6; sec=18; ms=991;]

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Application No: 10565595 Version No: 1.0

Input Set:

Output Set:

Started: 2008-06-30 13:47:05.063
Finished: 2008-06-30 13:47:06.376
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 313 ms
Total Warnings: 9
Total Errors: 5
No. of SeqIDs Defined: 9
Actual SeqID Count: 9

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
E 257	Invalid sequence data feature in <221> in SEQ ID (5)
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W 213	Artificial or Unknown found in <213> in SEQ ID (6)
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W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)

SEQUENCE LISTING

<110> ARAKAWA, TAKESHI
KIKUKAWA, MASANAO
SHIMABUKURO, ISAO
TADANO, MASAYUKI
MATSUMOTO, YASUNOBU
TSUJI, NAOTOSHI
SATO, YOSHIYA

<120> HETERO TYPE PENTAMER RECOMBINANT VACCINE

<130> 285137US0XPCT

<140> 10565595

<141> 2008-06-30

<150> PCT/JP04/10459

<151> 2004-07-23

<150> JP 2003-279156

<151> 2003-07-24

<150> JP 2003-412053

<151> 2003-12-10

<160> 9

<170> PatentIn Ver. 3.3

<210> 1

<211> 293

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 1

Met Ile Lys Leu Lys Phe Gly Val Phe Phe Thr Val Leu Leu Ser Ser
1 5 10 15

Ala Tyr Ala His Gly Thr Pro Gln Asn Ile Thr Asp Leu Cys Ala Glu
20 25 30

Tyr His Asn Thr Gln Ile His Thr Leu Asn Asp Lys Ile Phe Ser Tyr
35 40 45

Thr Glu Ser Leu Ala Gly Lys Arg Glu Met Ala Ile Ile Thr Phe Lys
50 55 60

Asn Gly Ala Thr Phe Gln Val Glu Val Pro Gly Ser Gln His Ile Asp
65 70 75 80

Ser Gln Lys Lys Ala Ile Glu Arg Met Lys Asp Thr Leu Arg Ile Ala

85

90

95

Tyr Leu Thr Glu Ala Lys Val Glu Lys Leu Cys Val Trp Asn Asn Lys
 100 105 110

Thr Pro His Ala Ile Ala Ala Ile Ser Met Ala Asn Gly Pro Gly Pro
 115 120 125

Glu Phe Thr Tyr Gly Met Cys Thr Glu Lys Phe Ser Phe Ala Lys Asn
 130 135 140

Pro Ala Asp Thr Gly His Gly Thr Val Val Ile Glu Leu Ser Tyr Ser
 145 150 155 160

Gly Ser Asp Gly Pro Cys Lys Ile Pro Ile Val Ser Val Ala Ser Leu
 165 170 175

Asn Asp Met Thr Pro Val Gly Arg Leu Val Thr Val Asn Pro Phe Val
 180 185 190

Ala Thr Ser Ser Ala Asn Ser Lys Val Leu Val Glu Met Glu Pro Pro
 195 200 205

Phe Gly Asp Ser Tyr Ile Val Val Gly Arg Gly Asp Lys Gln Ile Asn
 210 215 220

His His Trp His Lys Ala Gly Ser Thr Leu Gly Lys Ala Phe Ser Thr
 225 230 235 240

Thr Leu Lys Gly Ala Gln Arg Leu Ala Ala Leu Gly Asp Thr Ala Trp
 245 250 255

Asp Phe Gly Ser Ile Gly Gly Val Phe Asn Ser Ile Gly Lys Ala Val
 260 265 270

His Gln Val Phe Gly Gly Ala Phe Arg Thr Leu Phe Gly Gly Met Ser
 275 280 285

Trp Ile Thr Gln Gly
 290

<210> 2

<211> 882

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polynucleotide

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 ctaaagtata agatattttc gtatacagaa tctctagctg gaaaaagaga gatggctatc 180
 attactttta agaatggtgc aacttttcaa gtagaagtac caggtagtca acatatagat 240
 tcacaaaaaa aagcgattga aaggatgaag gataccctga ggattgcata tcttactgaa 300

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actttgaagg gagctcagag actggcagcg ttgggtgaca cagcctggga ctttggtctc 780
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agaacactct tcgggggaat gtcttggtac acacaagggt ga 882

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
primer

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<210> 4

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

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<210> 5

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<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
peptide

<220>

<221> MOD_RES

<222> (1)

<223> B subunit monomer residue

<220>

<221> MOD_RES

<222> (2)..(5)

<223> Any amino acid or not present

<220>
 <221> MOD_RES
 <222> (6)..(13)
 <223> This region may encompass 2 to 4
 'Gly-Pro' repeating units

<220>
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 <222> (14)..(17)
 <223> Any amino acid or not present

<220>
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 <222> (18)
 <223> Any amino acid

<220>
 <223> see specification as filed for detailed description of
 substitutions and preferred embodiments

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 1 5 10 15

 Xaa Xaa

<210> 6
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
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<400> 6
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<210> 7
 <211> 12
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 7
 agtatggcaa at

<210> 8
 <211> 12
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 8

ggccccgggc ca

12

<210> 9

<211> 12

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 9

acctatggca tg

12